CHANNEL ESTIMATION FOR OFDM COMMUNICATION SYSTEMS INCLUDING IEEE 802.11A AND EXTENDED RATE SYSTEMS

ABSTRACT OF THE DISCLOSURE

Channel estimation techniques are provided for a receiver of a wireless communication system using orthogonal frequency division multiplexing (OFDM), including legacy 802.11a and various extended rate systems. Training signals are received from one or more receive antennas. An estimated channel impulse response is computed from the received training signals by reference to a training sequence. The estimated channel impulse response is truncated in the time domain based on channel power and noise data. Channel response tracking techniques may also be implemented to correct for variations in channel response over the transmission time of a packet.